Amendment and Response under 37 C.F.R. 1.116
Applicant: Keith Hoene et al.
Serial No.: 09/887,816
Filed: June 25, 2001
Docket No.: 10007759-1 (H303.210.101)
Title: SYSTEM AND METHOD FOR COMPUTER NETWORK VIRUS EXCLUSION

REMARKS

The following remarks are made in response to the Final Office Action mailed April 14, 2005. Claims 4-6, 8-10, 12-15, 17, 20, 22-23, and 26-27 have been cancelled. Claims 1-3, 6-11, 14-22, and 24-27 were rejected. With this Response, claims 1-3, 7, 11, 16, 19, 21, and 24-25 have been amended. Claims 1-3, 7, 11, 16, 18, 19, 21, and 24-25 remain pending in the application and are presented for reconsideration and allowance.

Clarification Regarding Cited References

In order to clarify the prosecution history, Applicant notes that the cited reference U.S. Patent titled COMPUTER SECURITY USING VIRUS PROBING to Grosse actually has the patent number U.S. Patent 6,205,551, rather than patent number 5,205,551, which has been inadvertently replicated in the Office Actions. U.S. Patent 5,205,551 corresponds to a clearly unrelated subject matter, as reflected by its title APPARATUS FOR TRANSPORTING SHEET.

Claim Rejections under 35 U.S.C. § 103

In the Office Action, claims 1-3, 6, 11, 14, 15, 19-20, 24, 25, and 27 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Chefalas et al., U.S. Publication No. 20020116639 ("Chefalas") in view of Grosse U.S. Patent No. 6,205,551 ("Grosse").

As admitted in the Office Action, Chefalas fails to disclose a method of network computing that includes detecting client computers that do not maintain an enabled virus protector and isolating a client computer that has a disabled virus protector, as claimed by Applicant in claim 1, and fails to disclose preventing connection for client computers not enabled for virus protection (stated in rejection of claim 5 in prior Office Action), as claimed by Applicant in claim 1.

Grosse fails to cure the deficiencies of Chefalas. Grosse fails to teach or suggest terminating or preventing a client-server connection for at least one client computer based on **verifying directly** between the at least one client computer and the virus monitor of the

Amendment and Response under 37 C.F.R. 1.116
Applicant: Keith Hoene et al.
Serial No.: 09/887,816
Filed: June 25, 2001
Docket No.: 10007759-1 (H303.210.101)
Title: SYSTEM AND METHOD FOR COMPUTER NETWORK VIRUS EXCLUSION

server a <u>disabled status or non-enabled status</u> of a virus protector of the client computer, as claimed by Applicant in claim 1.

Instead, Grosse discloses a network that <u>indirectly</u> evaluates each client computer by virus-probe testing the client computers via a firewall. In particular, regarding the disabled status of a virus protector, Grosse fails to disclose the disabled status being verified <u>via a direct status query</u> from the virus monitor of the server to the at least one client computer, as claimed by Applicant. In Grosse, virus prober 185 in firewall 180 sends a virus probe in incoming files (through server 135) to test each user terminal 165, which is an <u>indirect</u> method of determining a status of a virus protector client computer. Applicant's claimed method removes the possibility of a client-server connection by a virus susceptible client computer while the system in Grosse would only later discover that one or more of the user terminals was improperly configured because the virus probe testing is performed randomly while the user terminal is connected to the proxy server 135.

Moreover, regarding the non-enabled status of a virus protector, Grosse fails to disclose the non-enabled status being verified via the at least one client computer failing to report enabled virus protection to the virus monitor of the server <u>at the time of the attempted client-server connection, as claimed by Applicant</u>. Instead, in Grosse, the virus prober 185 in firewall 180 randomly inserts virus probes from a firewall into files that come through server 135 to user terminals 165 already in communication with the server 135. Accordingly, the indirect test method using random probes in Grosse would not help verifying enabled virus protection at the time of attempted connection between the client and the server, as claimed by Applicant.

Finally, Grosse only generally indicates that a network security administrator can take appropriate action to correct those clients which are misconfigured (see Grosse at Column 3, lines 10-15 and 22-24), but does <u>not</u> disclose <u>automatically</u> terminating a client-server connection or <u>automatically</u> preventing a client-server connection based on directly verifying the disabled or non-enabled status of a virus protector of a client computer, as claimed by Applicant in claim 1. Again, the system in Grosse would only later discover that one or more of the user terminals was improperly configured because the virus probe testing is performed randomly while the user terminal(s) 165 is connected to the proxy server 135.

9

Amendment and Response under 37 C.F.R. 1.116
Applicant: Keith Hoene et al.
Serial No.: 09/887,816
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Docket No.: 10007759-1 (H303.210.101)
Title: SYSTEM AND METHOD FOR COMPUTER NETWORK VIRUS EXCLUSION

For these reasons, Grosse fails to disclose what Chefalas lacks regarding Applicant's independent claim 1.

Applicant notes that it is appropriate to challenge references individually to show nonobviousness, because if either or both references can be shown to be lacking an element of a claimed method/device that a reference is asserted to disclose, then the combination for obviousness fails since the two or more references "do not add up". In this case, because Chefalas admittedly fails to disclose Applicant's independent claim 1 regarding detection of client computers that do not maintain an enabled virus protector, isolation of a client computer that has a disabled virus protector, and prevention of connection for client computers not enabled for virus protection, **and** because Grosse fails to cure the deficiencies of Chefalas for the reasons explained above, one cannot combine Chefalas and Grosse and arrive at Applicant's independent claim 1.

For these reasons, Chefalas and Grosse, alone or in combination, fail to teach or suggest amended independent claim 1, and therefore Applicant's amended independent claim 1 is patentable and allowable over Chefalas and Grosse. In addition, dependent claims 2-3 are also believed to be allowable based on their dependency from patentably distinct claim 1.

For substantially the same reasons as presented for patentability of claim 1, Chefalas and Grosse fail to disclose Applicant's amended independent claim 25 which is directed to a computer readable medium having computer-executable instructions for performing a method of network computing -- the method including substantially the same limitations as claim 1. For these reasons, Chefalas and Grosse fail to teach or suggest amended independent claim 25, and therefore Applicant's amended independent claim 25 is patentable and allowable over Chefalas and Grosse.

Regarding Applicant's independent claim 11, Chefalas fails to disclose a method of preventing network virus migration within a network. The method includes, among other things, monitoring a virus susceptibility of each client computer of the network to identify at least one virus-susceptible client computer based on <u>directly verifying</u> that a virus protector of the client computer is enabled and that the client computer reports a valid virus scan report.

10

Amendment and Response under 37 C.F.R. 1.116
Applicant: Keith Hoene et al.
Serial No.: 09/887,816
Filed: June 25, 2001
Docket No.: 10007759-1 (H303.210.101)
Title: SYSTEM AND METHOD FOR COMPUTER NETWORK VIRUS EXCLUSION

As admitted in the Office Action, Chefalas fails to disclose detecting a client computer that does not maintain an enabled virus protector and isolating a client computer having a disabled virus protector. As also admitted in the Office Action, Chefalas fails to disclose selectively permitting the client computer authorized access to the server through the client-server connection when the virus scan report detects no viruses and denying the client computer access to the server when a virus is detected or no valid virus report is provided by the client computer.

Grosse fails to cure the deficiencies of Chefalas. Grosse fails to teach or suggest terminating or preventing a client-server connection for an at least one client computer based on **directly verifying** a disabled status or non-enabled status of a virus protector of the client computer, as claimed by Applicant in claim 11. Instead, Grosse discloses a network that indirectly evaluates each client computer by virus-probe testing the user terminals 165 via a firewall 180 through server 135. Moreover, Grosse does not disclose tracking virus-susceptible computers and preventing a client-server connection based on directly verifying the disabled or non-enabled status of a virus protector of a client computer, as claimed by Applicant in claim 11.

Moreover, neither Chefalas nor Grosse disclose establishing a quarantine of each virus-susceptible client computer to prevent further client-server connections by each quarantined virus-susceptible client computer, as claimed by Applicant in claim 11.

Because Chefalas admittedly fails to disclose Applicant's independent claim 11 regarding detection of client computers that do not maintain an enabled virus protector, isolation of a client computer that has a disabled virus protector1, and prevention of connection for client computers not enabled for virus protection, **and** because Grosse fails to cure the deficiencies of Chefalas for the reasons explained above, one cannot combine Chefalas and Grosse and arrive at Applicant's independent claim 11.

For these reasons, Chefalas and Grosse fail to teach or suggest amended independent claim 11, and therefore Applicant's amended independent claim 11 is patentable and allowable over Chefalas and Grosse.

For substantially the same reasons as presented for patentability of claim 11, Chefalas and Grosse fail to disclose Applicant's amended independent claim 24 which is directed to a computer readable medium having computer-executable instructions for performing a method

Amendment and Response under 37 C.F.R. 1.116
Applicant: Keith Hoene et al.
Serial No.: 09/887,816
Filed: June 25, 2001
Docket No.: 10007759-1 (H303.210.101)
Title: SYSTEM AND METHOD FOR COMPUTER NETWORK VIRUS EXCLUSION

of preventing network virus migration within a network -- the method including substantially the same limitations as claim 11. For these reasons, Chefalas and Grosse fail to teach or suggest amended independent claim 24, and therefore Applicant's amended independent claim 24 is patentable and allowable over Chefalas and Grosse.

Independent claim 19 specifies a server including, among other things, a quarantine monitor configured for preventing a client-server connection for at least one virus-susceptible client computer by <u>direct verification between the quarantine monitor and the at least one virus-susceptible client computer</u> that the at least one virus-susceptible client computer has at least one of a <u>disabled virus protector and a lack of a virus protector</u>, and configured for tracking an identity of the at least one virus-susceptible client computer.

For substantially the same reasons presented in support of patentablity of independent claim 1, both the first cited passage in Chefalas (¶ 12) and the second cited passage in Chefalas (¶ 44, Figs. 4A-4B) fail to disclose a quarantine monitor of a server that directly verifies <u>between the quarantine monitor and the at least one virus-susceptible client computer</u> the status of disabled virus protector of a client computer or a lack of a virus protector for a client computer, as claimed by Applicant in claim 19. Moreover, the second cited passage of Chefalas merely discloses various details about a business event 400 without teaching or suggesting enablement or disablement of a virus protector of at least one client computer, as claimed by Applicant in claim 19.

In addition, Chefalas and Grosse fail to disclose tracking an identity of the at least one virus-susceptible client computer <u>to prevent future attempted client-server connections when the at least one virus-susceptible client computer has a **tendency** to have a disabled virus protector or lack of a virus protector</u>

In this case, because Chefalas admittedly fails to disclose features of Applicant's independent claims regarding detection of client computers that do not maintain an enabled virus protector, isolation of a client computer that has a disabled virus protector, and prevention of connection for client computers not enabled for virus protection, **and** because Grosse fails to cure the deficiencies of Chefalas for the reasons explained above, one cannot combine Chefalas and Grosse and arrive at Applicant's independent claim 19.

Amendment and Response under 37 C.F.R. 1.116
Applicant: Keith Hoene et al.
Serial No.: 09/887,816
Filed: June 25, 2001
Docket No.: 10007759-1 (H303.210.101)
Title: SYSTEM AND METHOD FOR COMPUTER NETWORK VIRUS EXCLUSION

Independent claims 22-23 have been canceled.

In the Office Action, claims 7 and 13 were rejected under 35 U.S.C. 103(a) as being unpatentable over Chefalas in view of Stiles U.S. Pat. No. 6,330,608 (herein Stiles).

Dependent claim 13 was canceled in the last Office Action.

Independent claim 7 specifies a method of maintaining a virus-controlled network computing system. As admitted in the Office Action, Chefalas fails to disclose selectively permitting the client computer authorized access to the server through the client-server connection <u>when the virus scan report</u> detects no viruses and denying the client computer access to the server when a virus is detected or <u>no valid virus report</u> is provided by the client computer.

Neither Chefalas nor Grosse disclose the server establishing the client-server connection <u>only</u> when the at least one client computer includes a virus protection program in an <u>enabled</u> mode, as in Applicant's independent claim 7. Neither Chefalas nor Grosse disclose querying the client periodically to determine if the virus protector of the at least one client computer remains enabled and terminating the client-server connection if the virus definitions of the virus protector of the at least one client computer have not been updated within a specified date criteria of the server, as claimed by Applicant in claim 7.

Stiles fails to cure the deficiencies of Chefalas. In particular, Stiles also fails to disclose at least one client computer scanning itself for viruses, as claimed by Applicant. Moreover, Stiles fails to disclose a computer network determining whether a client computer provides a valid virus report that detects no viruses or whether a client computer lacks a valid virus report, as claimed by Applicant in claim 7. Rather, Stiles discloses that a computer network checks for viruses to validate a service provider seeking access to a computer system. Accordingly, in Stiles, the computer network performs the virus scan and the service provider does not provide it own virus scan report.

Moreover, Stiles fails to disclose querying the client periodically to determine if the virus protector of the at least one client computer remains enabled and terminating the client-server connection if the virus definitions of the virus protector of the at least one client

13

Amendment and Response under 37 C.F.R. 1.116
Applicant: Keith Hoene et al.
Serial No.: 09/887,816
Filed: June 25, 2001
Docket No.: 10007759-1 (H303.210.101)
Title: SYSTEM AND METHOD FOR COMPUTER NETWORK VIRUS EXCLUSION

computer have not been updated within a specified date criteria of the server, as claimed by Applicant, and therefore Stiles fails to cure the deficiencies of Chefalas and/or Grosse.

For these reasons, Chefalas and Stiles, fail to teach or suggest amended independent claim 7, and therefore Applicant's amended independent claim 7 is patentable and allowable over Chefalas and Stiles.

Regarding the rejection of claims 8 and 9, dependent claims 8-9 have been canceled.

In the Office Action, claims 10, 16-18, and 26 were rejected under 35 U.S.C. 103(a) as being unpatentable over Chefalas in view of Stiles and further in view of Hodges et al. U.S. Patent No. 6,269,456 (herein Hodges).

Dependent claims 10 and 17 have been canceled.

Chefalas, Stiles and Hodges fail to disclose Applicant's independent claim 16 directed to a virus exclusion network system which comprises, among other things: (1) a client computer including, among other things, a virus protector configured for producing a report to a server to confirm by a virus scan report that the client computer is virus-free and for producing a notification that the virus protector is enabled; and (2) a network server including a virus monitor configured for preventing an attempted authorized network connection between the client computer and the server when the client computer fails to produce, at the time of the attempted authorized network connection, at least one of a **report of an up-to-date virus scan** of the client computer and a notification of **enablement of the virus protector** of the client computer.

For substantially the same reasons presented in support of patentablity of independent claim 1, both the first cited passage in Chefalas (¶ 12) and the second cited passage in Chefalas (¶ 44, Figs. 4A-4B) fail to disclose a virus protector of a client computer configured to produce a virus scan report to a server as part of proving eligibility to connect to a server, as claimed by Applicant in claim 16. Moreover, the second cited passage in Chefalas merely discloses various details about a business event 400 without teaching or suggesting notifying

Amendment and Response under 37 C.F.R. 1.116
Applicant: Keith Hoene et al.
Serial No.: 09/887,816
Filed: June 25, 2001
Docket No.: 10007759-1 (H303.210.101)
Title: SYSTEM AND METHOD FOR COMPUTER NETWORK VIRUS EXCLUSION

a server about enablement of the virus protector of the client computer in order to be eligible for connection to the server, as claimed by Applicant in claim 16.

Stiles fails to cure the deficiencies of Chefalas. In particular, Stiles fails to disclose a method of preventing network virus migration including, among other things, determining whether a client computer provides (to a server) a valid virus report or whether a client computer maintains an enabled virus protector, as claimed by Applicant in claim 16. Rather, the cited passage in Stiles (Column 2, line 56- Column 3, line 40) discloses that a computer network checks for viruses to validate a service provider seeking access to a computer system. Accordingly, in Stiles, the computer network does not check whether or not the service provider has enabled virus protector, and the service provider does not provide it own virus scan report.

Hodges fails to cure the deficiencies of Chefalas and of Stiles. Instead, the cited passage in Hodges (Column 4, line 53 to Column 5, line 48) teaches away from Applicant's claim 10 because the server noted in Hodges is a central antivirus server of a virus service provider (rather than a server of a local network to which the client computer belongs) which seeks to maintain a server-client connection when the virus definitions are not updated in order to be able to provide the up-to-date virus definitions. This action is the opposite of Applicant's method of terminating a client-server connection when virus definitions are not up-to-date.

Both Stiles and Hodges fail to disclose what Chefalas lacks, therefore one cannot combine Chefalas, Stiles and/or Hodges and thereby arrive at Applicant's independent claim 16.

For these reasons, Chefalas, Stiles and Hodges, fail to teach or suggest independent claim 16, and therefore Applicant's amended dependent claim 16 is patentable and allowable over Chefalas, Stiles and Hodges. In addition, dependent claim 18 is believed to be allowable based on its dependency from patentably distinct independent claim 16.

In the Office Action, claims 21 and 22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Chefalas in view of Grosse and further in view of Hodges.

Claim 22 has been canceled.

Amendment and Response under 37 C.F.R. 1.116
Applicant: Keith Hoene et al.
Serial No.: 09/887,816
Filed: June 25, 2001
Docket No.: 10007759-1 (H303.210.101)
Title: SYSTEM AND METHOD FOR COMPUTER NETWORK VIRUS EXCLUSION

Regarding Applicant's amended independent claim 21, Chefalas fails to disclose independent claim 21 that specifies a computing network virus monitor. In particular, for substantially the same reasons presented in support of patentablity of independent claim 1, both the first cited passage in Chefalas (¶ 12) and the second cited passage in Chefalas (¶ 44, Figs. 4A-4B) fail to disclose a quarantine monitor for preventing network communications between a server of a network and each client computer that is virus-infected or that is virus-susceptible by having at least one of a disabled virus protector and a virus definition set that is that is out-of-date, as claimed by Applicant in claim 21. Moreover, the second cited passage of Chefalas merely discloses various details about a business event 400 without teaching or suggesting enablement or disablement of a virus protector of at least one client computer, as claimed by Applicant.

Finally, for substantially the same reasons presented for patentability of claims 16 and 19 Chefalas, Grosse and Hodges, fail to disclose a quarantine monitor configured for tracking, via a client computer identifier, an identity of each client computer client computer having a tendency to be virus-infected or virus-susceptible enable activation of the blocking mechanism, as claimed in Applicant's claim 21.

Both Grosse and Hodges fail to disclose what Chefalas lacks, therefore one cannot combine Chefalas, Grosse, and/or Hodges and thereby arrive at Applicant's independent claim 21.

For these reasons, Chefalas fails to teach or suggest amended independent claim 21, and therefore Applicant's amended independent claim 21 is patentable and allowable over Chefalas.

Accordingly, Applicant respectfully requests that the above 35 U.S.C. § 103 rejection to pending claims 1-3, 7, 11, 16, 18, 19, 21, and 24-25 based on Chefalas, Stiles, Grosse, Arnold, and/or Hodges, as expressed in each of the separate rejections under Section 103, be reconsidered and withdrawn, and that these claims be allowed.

Amendment and Response under 37 C.F.R. 1.116
Applicant: Keith Hoene et al.
Serial No.: 09/887,816
Filed: June 25, 2001
Docket No.: 10007759-1 (H303.210.101)
Title: SYSTEM AND METHOD FOR COMPUTER NETWORK VIRUS EXCLUSION

CONCLUSION

In view of the above, Applicant respectfully submits that pending claims 1-3, 7, 11, 16, 18, 19, 21, and 24-25 are in form for allowance and are not taught or suggested by the cited references. Therefore, reconsideration and withdrawal of the rejections and allowance of claims 1-3, 7, 11, 16, 18, 19, 21, and 24-25 is respectfully requested.

No fees are required under 37 C.F.R. 1.16(b)(c). However, if such fees are required, the Patent Office is hereby authorized to charge Deposit Account No. 08-2025.

The Examiner is invited to contact the Applicant's representative at the below-listed telephone numbers to facilitate prosecution of this application.

Any inquiry regarding this Amendment and Response should be directed to either Jeff D. Limon at Telephone No. (541) 715-5979, Facsimile No. (541) 715-8581 or Paul S. Grunzweig at Telephone No. (612) 767-2504, Facsimile No. (612) 573-2005. In addition, all correspondence should continue to be directed to the following address:

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Respectfully submitted,

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CERTIFICATE UNDER 37 C.F.R. 1.8: The undersigned hereby certifies that this paper or papers, as described herein, are being deposited in the United States Postal Service, as first class mail, in an envelope address to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this _14_ day of June, 2005.

By_____
Name: Paul S. Grunzweig